

Gen. Peter Pace, USMC,
addresses members of
the Joint Staff

U.S. Air Force (D. Myles Cullen)

FEATURE

Reforming Pentagon Decisionmaking

By CHRISTOPHER J. LAMB and IRVING LACHOW

This article is a synopsis of *INSS Strategic Forum 221*, which can be downloaded at ndupress.ndu.edu

A major surprise in the Department of Defense 2006 *Quadrennial Defense Review (QDR) Report* to Congress is the prominence it gives to decisionmaking reform. Pentagon leaders thought that improvements to the decisionmaking process prior to the QDR would facilitate hard choices on new military capabilities.¹ Yet by the end of the QDR, they concluded that additional decisionmaking reforms were one of two fundamental strategic imperatives for the Department.² In this article, we recommend a Decision Support Cell to improve Pentagon decisionmaking. Before explaining how the cell would work, we identify prerequisites for good decisionmaking and the problems and conditions that currently diminish the quality of that undertaking at the Pentagon.

Reason and Intuition

It is commonly assumed that people should make decisions as rationally as possible and that deviations from the rational ideal are undesirable. Recently, however, scientists have

concluded that people using mental shortcuts can produce good decisions in difficult circumstances. One of the most popular nonrational theories of decisionmaking, which can be dubbed the *intuitive model*, proposes that people make decisions by recognizing situations, matching them to previous situations they have experienced, simulating various solutions in their heads, and then picking the first solution that is good enough to satisfy the problem at hand.³ In this model, popularized in Malcolm Gladwell's *Blink*, biases are not deviations from an ideal approach but rather helpful mental adaptations that enable quick, accurate decisions.

Blink stimulated a defense of rationality and a resultant "blink vs. think" controversy that captured popular imagination.⁴ However, the clear consensus among experts is that people use *both* intuitive and rational techniques to make good decisions. People generally rely on their intuition when:⁵

- they face time-urgent situations such as wildfires or battlefield triage, where even short

delays to "reason through" a formal decisionmaking process can result in disaster

- conditions are dynamic or goals are ambiguous; it makes sense in such circumstances to focus on a quick "good enough" solution that can be reevaluated later

- they have a great deal of relevant experience; the more relevant experience a person has, the more likely he is to use intuition and use it well

- the problem can be modeled in mental simulations to determine what would happen if a given option were chosen (for example, one study found that Navy commanders serving on Aegis cruisers use intuitive decisionmaking for 95 percent of their decisions).⁶

In contrast, people generally use a rational process when:⁷

- they are not under heavy time pressure that requires mental shortcuts; with more time, people are more likely to follow the rational approach, if only to verify an initial gut feeling

- conditions are relatively stable and goals are clear, permitting a rational approach to find an optimal solution

Christopher J. Lamb is a Senior Research Fellow in the Institute for National Strategic Studies at the National Defense University. Irving Lachow is a Senior Research Professor in the Information Resources Management College at the National Defense University.

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 2006		2. REPORT TYPE		3. DATES COVERED 00-00-2006 to 00-00-2006	
4. TITLE AND SUBTITLE Reforming Pentagon Decisionmaking			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) National Defense University, Institute for National Strategic Studies, 260 Fifth Avenue SW Bg 64 Fort Lesley J. McNair, Washington, DC, 20319			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 4	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

■ they do not have the relevant experience to provide a basis for pattern matching; then they should (and usually do) resort to a more rational model to guide them through problem formulation, option identification, analysis, and selection of a solution

■ the problem is so computationally complex that it overwhelms the ability to grasp a given situation, at which point the quality of decisions erodes along with the ability to recognize situations or run mental simulations.

Despite different models, human decisionmaking actually represents a continuum. In most cases, people decide through a combination of reason and nonrational mental shortcuts. For example, people can use intuitive rules of thumb to bound the range of possible solutions for a problem analyzed rationally. Similarly, they can use a rational thought process to augment or verify initial intuitive judgments.⁸

How do these observations about the way people decide relate to decisionmaking in the Pentagon? First, reforming strategic decisionmaking must account for the way senior leaders actually make strategic-level decisions (for example, by acknowledging the power of personal and bureaucratic biases). Second, prescriptions for improving decisionmaking

must accommodate rational, nonrational, and intuitive decisionmaking, depending on which is likely to generate better outcomes.⁹ To determine when these different approaches are appropriate, we must understand the circumstances in the Pentagon that affect senior leader decisionmaking.

tify and weigh all possible risks. Second, the infrequency of war means there is not a large experiential basis for making intuitive decisions about what investments will produce the best mix of capabilities for warfighting; therefore, a rational as opposed to an intuitive system makes sense for investment decisions.

Third, many Pentagon planning problems (for example, logistics or strategic lift) are computationally so complex that they defy intuitive judgment alone. Fourth,

there usually is sufficient time to allow a rational process to unfold.

The resource planning and allocation systems designed to support senior Pentagon leaders, therefore, are ostensibly methodical and engineered to minimize risk: objectives are defined, conditions that inform the objectives are identified, alternative ways and means to achieve the objectives are explored, expected and unintended consequences are considered, and decisions are made, generally to eliminate as much risk in as many categories as possible. The same holds true for contingency planning systems that were designed to rationalize campaign planning and war plans review.

Bureaucratic Contributions and Limitations to Rational Decision Support. To execute its ostensibly rational planning processes,

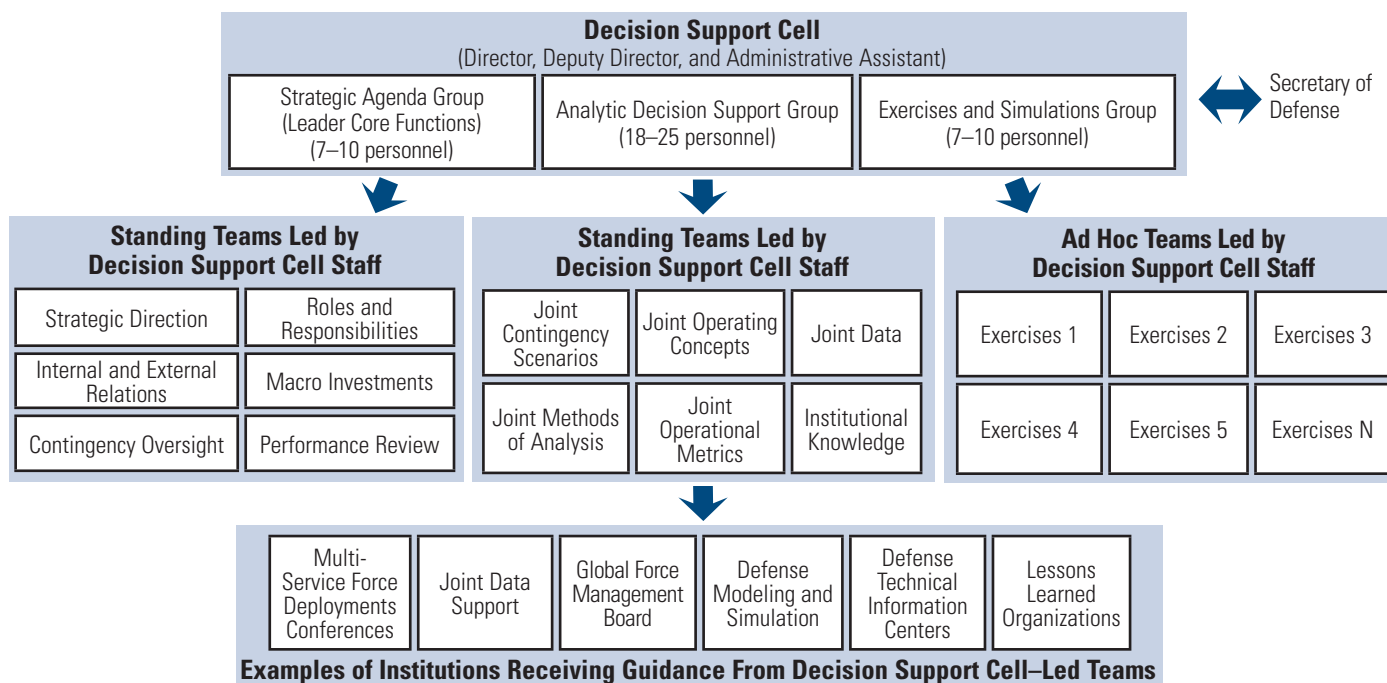
consensus among experts is that people use both intuitive and rational techniques to make good decisions

Challenges

Pentagon decisionmaking reforms since World War II are largely a history of efforts to curtail the power of the Services to veto *joint* solutions that serve the entire military better. Service cultures are beneficial for warfighting, but they can be counterproductive at higher decisionmaking levels where integrated effort is required.

Secretary of Defense Robert McNamara's planning, programming, and budgeting system was installed in 1961 to rationalize Pentagon decisionmaking with broader, more transparent, and more objective decision criteria. It survives to this day, albeit in modified form, because its rational design is beneficial for several reasons. First, the high stakes involved in deterrence and war argue for adoption of rational processes that iden-

Decision Support Cell Structure



the Pentagon is divided into hierarchical organizational structures that represent relatively narrow bodies of expertise: policy, intelligence, program analysis, acquisition, or budgeting. Recently, Pentagon wits have taken to calling these stovepipe organizations “cylinders of excellence,” which they in fact are. Their purpose is to build and nurture deep expertise in narrow bodies of knowledge. These experts identify issues, devise options and recommendations, and forward them up the chain to senior officials. In this regard, Pentagon decision support is essentially “bottom-up” as well as “stovepiped.”

These bottom-up rational decision processes are limited by multiple bureaucratic and human factors. Senior leaders need integrated problem assessments and solution options, but there are few incentives for their subordinates to collaborate to provide them. Instead, subordinates are rewarded for developing and protecting their own organizational equities. Absent any incentive to sacrifice organizational equities for the common good, the natural outcome of formal coordination in the Pentagon is consensus products that avoid and obscure the need for tough tradeoffs. As a result, many talented and motivated officials get their positions directly to senior decisionmakers by circumventing the formal coordination process. Proposals presented this way often are clear and creative but reflect a perspective that does not benefit from access to all relevant information.

What Senior Leaders Need. Secretaries and Deputy Secretaries of Defense need integrated decision support from the 30 or more subordinate bureaucracies that report directly to them, but they do not receive this support, and they do not have time to produce it themselves. These leaders are the first real point of integration in the Department of Defense, and they do not like it. Former Secretaries and Deputy Secretaries are virtually unanimous in their belief that the Pentagon bureaucracy could be cut from 25 to 75 percent without any degradation in the quality of decision support.¹⁰ The Office of the Secretary of Defense is often singled out as bloated and ineffective, but the Joint Staff also hoards information and defaults toward least common denominator products. Colin Powell remarked that while he was Chairman, the “sole purpose” of his 1,500-member staff “was to keep as

much information away from me as possible, [thinking] let’s just give him what we want him to have, not what he needs.”¹¹

Secretary Donald Rumsfeld made it clear early on that he would challenge these bureaucratic tendencies. In a speech on September 10, 2001, he called the Pentagon bureaucracy the enemy, arguing that it “disrupts the defense of the United States and places the lives of men and women in uniform at risk.”¹² The next day, however, he had to go to war with the bureaucracy he had, not the one he wanted. Therefore, like his predecessors, Secretary Rumsfeld uses workarounds to tame the bureaucracy. For example, he relies heavily on a few trusted aides who are able to offer alternatives to the bland or contradictory decision support provided by the bureaucracy. Unfortunately, that practice helps convince subordinates that having access to senior leaders and controlling information to them is the key to success, which further discourages information-sharing and collaboration. The lack of senior leader feedback to subordinates compounds the

the Decision Support Cell would be a dedicated staff located within the Secretary’s office with a mission to enforce discipline and collaboration

problem. If subordinates do not understand senior leaders’ decisions, they may conclude that the wrong choice was made for the wrong reasons, further deepening cynicism.

Decision Support: Balancing Rationality and Intuition. Even if the rational planning and resource allocation processes of the Pentagon worked better, they would be insufficient for producing good strategic decisions. Senior leaders must account for a broader range of factors than those found in analyses conducted by lower level officials. Sometimes the significance of these factors is so great that they dwarf the marginal utility of rational analyses. Even when the results of the rational analyses offer valuable insights, senior leaders ultimately must contrast choices across diverse value sets (operational, political, economic, and so forth). It is difficult to compare rationally the value of better relations with a key ally, less friction with a powerful Senator, and more economical shipbuilding. Doing so requires reliance on intuition, judgment, and other nonrational factors.

This is not to say that there is no role for rational decision support. Senior leaders must rely in part on their intuitive understanding of

the net effect of their decisions across multiple objectives, but they ought to take advantage of decision support that can better inform their intuition. In practice, this means two elements are required for strategic decisionmaking in the Pentagon: clear, transparent, and well-coordinated rational analyses of alternatives from the decision support system, and well-honed personal intuition and judgment. These elements can best be harmonized through the creation of a Decision Support Cell.

Reform’s Critical Element

The Decision Support Cell would be a dedicated staff located within the Secretary’s office with a mission to enforce a degree of discipline and collaboration in strategic decision support for the Secretary and his closest advisors. It should do three things. First, it should help the Secretary focus the decision support process on his own strategic agenda, making sure that he receives integrated products in support of this agenda and that the process provides necessary feedback and

direction. Second, it should improve the quality of the decision support routinely provided by the contingency planning and resource allocation systems, making sure underlying

assumptions are clear and that all viable alternatives are rigorously examined. Third, it should help senior leaders refine their intuitive decisionmaking with exercises that enlarge their experience base.

Strategic Decisionmaking Focus. The QDR Report underscored the importance of senior leader focus on a set of core functions that only they can perform effectively,¹³ but the lack of integrated, quality decision support for strategic issues makes that difficult. The Decision Support Cell should be charged with ensuring the collaboration among Pentagon bureaucracies necessary to put core senior leader issues in a strategic choice framework. In doing so, the cell would not usurp the functions of other staff elements but rather undertake integrating activities that currently are either left to the Secretary or are not done at all.

With a Decision Support Cell to coordinate decisionmaking in senior leader core functions, the Secretary’s personal staff would be free to support his daily schedule and personal needs. Similarly, subordinates could concentrate on their areas of expertise, knowing that the cell would ensure

collaboration when the Secretary needed it. Since the cell would have a holistic view of the senior leader core functions, it would be in a position to advise the Secretary on the importance of keeping abreast of these areas. It would also be in a position to identify specific problems that require him to set priorities among competing interests.

Improving Rational Decisionmaking Support. Comparing and evaluating alternatives is impossible without a transparent set of baseline assumptions, operating concepts, methods, metrics, and data. Without these common, essential precursors to good analysis, with results that are comparable and replicable, senior leaders cannot usefully evaluate alternatives and their consequences. Currently, no single organization has the interest, authority, and resources to produce such timely, quality products. As a result, the foundational products for good decision support are provided too slowly and with insufficient quality and quantity to support a common analytical framework across the Department.¹⁴

The Secretary would need to empower the Decision Support Cell to set standards and timelines for these analytic precursors and to enforce a degree of transparency, collaboration, and information-sharing among all the Pentagon headquarters elements that conduct analysis in support of senior decisionmakers. Exercising this kind of authority underscores why the cell must be independent of any Pentagon component and report directly to the Secretary. If it reported to someone lower, it might be unable to enforce the necessary collaboration and competition of ideas needed to support senior leader decisionmaking. If the cell belonged to an organization charged with conducting analysis on specific problems or conducted analysis itself, it would be predisposed to defend those analyses, immediately ruining its reputation as an honest broker.

Improving Intuitive Decisionmaking Support. The Decision Support Cell must also be able to support senior intuitive decisionmaking by providing leaders with the breadth and depth of experience needed in their jobs. The list of diverse areas where meaningful experience would be desirable includes military operations, executive management, bureaucratic processes, political savvy, government budgeting, media relations, intelligence products and operations, and emerging technologies. While it would be ideal for all senior leaders to possess a depth of real-life

experience in each these areas before taking office, it is not realistic.

Senior leaders can gain experience on the job, but that is time-consuming and inefficient and sometimes means learning by making mistakes. In fact, mistakes offer one of the best ways to learn, but given the stakes associated with strategic decisionmaking in the Pentagon, it is too costly a method to accept readily. A better approach would be to develop the senior leaders' experience base with a tailored program that helps them to:¹⁵

- identify and understand the decision requirements of their job
- practice difficult decisions in context
- review decisionmaking experiences to learn what works and what does not.

The best way to accomplish this goal is with decisionmaking exercises or thought experiments that are built on well-defined scenarios and capture the essence of specific decisions. These exercises could be conducted as tabletop or virtual games or both. Decisionmaking exercises should not be confused with large-scale games or field simulations; each experiment would be a focused event targeted at the characteristics of a unique decision.¹⁶

The Decision Support Cell should also help record the results of real-world intuitive decisionmaking. Even though intuitive decisionmaking is somewhat idiosyncratic and often politically sensitive, the cell must capture senior leader concerns and desires solidly enough to help middle management understand the factors that informed a particular decision, which will increase trust in the system and improve the quality of decision support.

Creating the Decision Support Cell is consistent with the 2006 QDR recommendations for institutional reform. If that seems like a tall order, we should remember that the tactical military already achieved a comparable transformation in decision support. Following the Vietnam War, the Services introduced objective, empirical feedback into training exercises with the aid of new simulation technologies and after-action reports to improve learning and decisionmaking. The training revolution of the 1970s was not an easy transformation, but it was highly effective because it combined the value of objective analysis of courses of action with the ultimate need for commanders to make intuitive assessments and decisions. The Pentagon could do the same thing at the strategic

level with a Decision Support Cell that balances objective analysis and intuitive wisdom. Those who fight the Nation's battles deserve nothing less. **JFQ**

NOTES

¹ Ryan Henry, "Defense Transformation and the 2005 Quadrennial Defense Review," *Parameters* (Winter 2005–2006), 5–15.

² Department of Defense, *2006 Quadrennial Defense Review Report* (Washington, DC: Department of Defense, February 6, 2006), 65–66.

³ The term *intuitive model* refers to a class of "naturalistic" models exemplified by Gary Klein's Recognition-Primed Model. See Klein, *Sources of Power: How People Make Decisions* (Cambridge: MIT Press, 1998).

⁴ Malcolm Gladwell, *Blink: The Power of Thinking without Thinking* (New York: Little, Brown, 2005); and Michel Legault, *Think! Why Crucial Decisions Can't Be Made in the Blink of an Eye* (New York: Threshold Editions, 2006).

⁵ Klein, 95–96.

⁶ *Ibid.*, 97.

⁷ *Ibid.*

⁸ David C. Gompert, Irving Lachow, and Justin Perkins, *Battle-Wise: Seeking Time-Information Superiority in Networked Warfare* (Washington, DC: National Defense University Press, 2006).

⁹ The Services clearly understand this point. Rational and intuitive decisionmaking processes, and the situations in which each should be used, are discussed explicitly in Navy and Marine Corps doctrine. For example, see Naval Doctrine Publication 6: *Command and Control*.

¹⁰ Exit interviews with departing Secretaries of Defense by the Pentagon Office of the Historian and informal comments from participants in defense reform studies who interviewed former senior leaders.

¹¹ "Follow the Leader," *Context Magazine*, interview with Colin S. Powell, available at <www.contextmag.com/setFrameRedirect.asp?src=/archives/200002/Feature0FollowtheLeader.asp>.

¹² "DOD Acquisition and Logistics Excellence Week Kickoff—Bureaucracy to Battlefield," remarks as delivered by Secretary of Defense Donald H. Rumsfeld, the Pentagon, September 10, 2001.

¹³ 2006 QDR Report, 65–66.

¹⁴ Christopher J. Lamb, *Transforming Defense* (Washington, DC: National Defense University Press, September 2005), 4–17.

¹⁵ Gary Klein, *The Power of Intuition: How to Use Your Gut Feelings to Make Better Decisions at Work* (New York: Currency Books, 2004), 36–63.

¹⁶ *Ibid.*, 45.